

**ABSTRACT OF THE DISCLOSURE**

This invention relates to the use of anti-cancer agents that inhibit mitotic spindle assembly in target cells, including taxanes such as paclitaxel, and in particular to methods and structures for predicting and/or reducing the resistance of cancer cells to such agents. Over-expression of aurora kinases, such as Aurora A, mediates resistance to such anti-cancer agents and the resistance of a cancer cell may be reduced by inhibiting aurora kinases and/or predicted by measuring the expression or activity of aurora kinases within the cell